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EXAMINER

LE, MIRANDA

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/699,102	<b>Applicant(s)</b> TAKAGI ET AL.	
	<b>Examiner</b> MIRANDA LE	<b>Art Unit</b> 2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/20/08 has been entered.

This communication is responsive to Amendment, filed 10/20/08.

Claims 1-14, 24, 25 are pending in this application. Claims 1, 14 are independent claims. In the Amendment, claims 1, 14 have been amended. This action is made non-Final.

### ***Claim Objections***

**Claims 1, 5-14, 24, 25** are objected to because of the following informalities: "method" should be read as "computer-implemented method". Appropriate correction is required.

**Claims 2-4** are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claims 2-4 are computer-readable medium claims that refer to claim 1. Since claim 1 is a method claim, claims 2-4 fail to further limit the parent claim. Applicant is required to cancel the

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claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

**Claims 2-4** are objected to because of the following informalities: “computer-readable medium” should be read as “computer-readable storage medium”.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless:

(e) the invention was described in

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-8, 10-14, 24, 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Carmel et al. (US Patent No. 6,389,473).**

Carmel anticipated independent claims 1, 14 by the following:

**As to claims 1, 14**, Carmel teaches a method/apparatus for synchronously transferring an amount of local data from a local data storage (*i.e. computer 34, Figs. 2, 4; the transmitting computer, col. 2, lines 51-59*) medium to a remote data storage (*i.e.*

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*Server 36, computers 30, Figs. 2, 4; clients, col. 2, lines 51-50) medium via a communications link having an available bandwidth (i.e. Preferably, computer 34 monitors the rate of data being transmitted over each of links 60, 62, 64, etc., and allocates files 42, 44, 46, 48, etc., according to the data rates. The sizes of the files may be varied by adjusting slice durations  $T_{sub.1}$ ,  $T_{sub.2}$ ,  $T_{sub.3}$ , etc., and a relatively greater volume of data may be transmitted through links exhibiting relatively greater data rates. The bandwidth open for transmission between computer 34 and server 36 is effectively roughly equal to a sum of the bandwidths of the plurality of open links. The number of links that are actually opened between computer 34 and server 36 may be less than or greater than the five links shown in the example of FIG. 4, depending on the available data rates of the open links, compared with the rate of data in stream 40. Preferably at least two links are opened, so that preparation and transmission of files 42, 44, 46, 48, etc., may be toggled back and forth between the links. A similar technique is preferably employed by clients 30, col. 9, lines 31-48), the local data storage medium associated with a local computer system having a local processor sequentially responsive to a plurality of local computer programs, the remote data storage medium associated with a remote computer system non-redundant of the local computer system and having a remote processor, the method comprising:*

*evaluating local user (i.e. transmitting computer, col. 2, lines 51-59) conditions (i.e. the rate of data being transmitted over each of links 60, 62, 64, col. 9, lines 31-48; link 60 will have timed out, col. 12, lines 48-59) associated with transfer of the local data (i.e. the transmitting computer and the clients monitor the uploading and downloading of*

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*data to and from the server, respectively, in order to determine the amount of time required to convey each slice and to verify that the slices are conveyed at a sufficient rate. When the data stream comprises multimedia data, the data rate should be generally equal to or faster than the rate at which the data are generated at the transmitting computer, col. 2, lines 51-59);*

*based on the currently available bandwidth (i.e. data rate, col. 5, lines 3-14; the available data rates of the open links, col. 9, lines 31-48) and the amount of local data (i.e. The sizes of the files, col. 9, lines 31-49), approximating a transfer time (i.e. On the other hand, if it is determined that the upload time for file 42 (or a subsequent file) is substantially shorter than duration  $T_{sub.1}$ , the duration of subsequent files may be extended, and/or the compression ratio may be decreased, so as to take better advantage of the available bandwidth, col. 12, lines 14-17) for the local data (i.e. the transmitting computer opens a plurality of links between the transmitting computer and the server, each link characterized by a respective data rate, and transmits different ones of the sequence of files over different ones of the plurality of links. Most preferably, the transmitting computer opens the plurality of links such that the data rates of the links taken together are sufficient to upload the sequence at the upload rate generally equal to the data rate. Further preferably, the transmitting computer monitors the data rates of the links and opens a new link in place of one of the links whose data rate is lower than a predetermined level, col. 5, lines 3-14);*

*determining a status of the local processor (i.e. Preferably, computer 34 monitors the rate of data being transmitted over each of links 60, 62, 64, etc., and allocates files*

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42, 44, 46, 48, etc., according to the data rates. The sizes of the files may be varied by adjusting slice durations  $T_1$ ,  $T_2$ ,  $T_3$ , etc., and a relatively greater volume of data may be transmitted through links exhibiting relatively greater data rates, col. 9, lines 31-49), wherein the determining step includes determining if the local processor has reduced activity (i.e. link 60 will have timed out, col. 12, lines 48-59) or is idle (i.e. If link 60 has not completed transmission of file 42 by the time the sixth file is ready for transmission, link 60 will have timed out, and a time-out indication will be received from step 88 (FIG. 5). In this case, link 60 is terminated and is replaced by link 70. Preferably, a "socket" opened for link 60 by a WINSOCK program running on computer 34 is simply reinitialized to open link 70. Optionally, file 42 is retransmitted over link 70 or over one of the other links, although in the case of a live broadcast transmission, it may be preferable simply to drop the file rather than send it after such a long delay, col. 12, lines 48-58);

based on the approximated transfer time (i.e. the time required to upload file 42 is measured and compared to  $T_{sub.1}$ , at the same time as file 44 (slice 2) is being encoded and prepared, col. 11, lines 65 to col. 12, line 12), the local user conditions, and the status of the local processor, selecting a time (i.e.  $T_1$ ,  $T_2$ ,  $T_3$ , col. 7, lines 35-49) to transmit the local data to the remote data storage medium (i.e. Computer 34 monitors the time codes as file 40 is transmitted, and clients 30 similarly monitor the time codes as the file is received, in order to ensure that the transmission or reception is "keeping up" with the input of the data to the computer. In the event that a lag is detected, steps are taken to increase the data transmission or reception rate, as

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*described further hereinbelow. For example, as shown in FIG. 3A, time intervals T1, T2, T3, etc., are not all equal, but rather are adjusted by computer 34 in response to the transmission rate. Alternatively or additionally, the compression level of the data is varied, as is likewise described below, so as to adjust the data streaming rate to the available bandwidth over one or more channels between computer 34 and server 36, and/or between server 36 and client 30, col. 7, lines 35-49); and*

*automatically arranging transfer of the local data to the remote data storage medium via the communications link at the selected time (i.e. Computer 34 monitors the time codes as file 40 is transmitted, and clients 30 similarly monitor the time codes as the file is received, in order to ensure that the transmission or reception is "keeping up" with the input of the data to the computer. In the event that a lag is detected, steps are taken to increase the data transmission or reception rate, as described further hereinbelow. For example, as shown in FIG. 3A, time intervals T.sub.1, T.sub.2, T.sub.3, etc., are not all equal, but rather are adjusted by computer 34 in response to the transmission rate. Alternatively or additionally, the compression level of the data is varied, as is likewise described below, so as to adjust the data streaming rate to the available bandwidth over one or more channels between computer 34 and server 36, and/or between server 36 and client 30, col. 7, lines 35-49).*

**As per claim 2,** Carmel teaches a computer-readable medium encoded with a computer program which, when loaded into a processor, implements the method of claim 1 *(i.e. If link 60 has not completed transmission of file 42 by the time the sixth file*



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*is ready for transmission, link 60 will have timed out, and a time-out indication will be received from step 88 (FIG. 5). In this case, link 60 is terminated and is replaced by link 70. Preferably, a "socket" opened for link 60 by a WINSOCK program running on computer 34 is simply reinitialized to open link 70. Optionally, file 42 is retransmitted over link 70 or over one of the other links, although in the case of a live broadcast transmission, it may be preferable simply to drop the file rather than send it after such a long delay, col. 12, lines 48-58).*

**As per claim 3**, Carmel teaches the computer-readable medium according to claim 2, wherein the computer program comprises one of the plurality of local computer-program, and the processor comprise the local processor (*See Figs. 2, 4*).

**As per claim 4**, Carmel teaches the computer-readable medium according to claim 2, wherein the processor comprises the remote processor (*See Figs. 2, 4*).

**As per claim 5**, Carmel teaches the method according to claim 1, further comprising: automatically transmitting the local data to the remote data storage medium at the selected time (*i.e. Computer 34 monitors the time codes as file 40 is transmitted, and clients 30 similarly monitor the time codes as the file is received, in order to ensure that the transmission or reception is "keeping up" with the input of the data to the computer. In the event that a lag is detected, steps are taken to increase the data transmission or reception rate, as described further hereinbelow. For example, as*

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*shown in FIG. 3A, time intervals  $T_{sub.1}$ ,  $T_{sub.2}$ ,  $T_{sub.3}$ , etc., are not all equal, but rather are adjusted by computer 34 in response to the transmission rate. Alternatively or additionally, the compression level of the data is varied, as is likewise described below, so as to adjust the data streaming rate to the available bandwidth over one or more channels between computer 34 and server 36, and/or between server 36 and client 30, col. 7, lines 35-49).*

**As per claim 6**, Carmel teaches the method according to claim 1, further comprising: automatically arranging for interruption of transfer of the local data bases on the status of the local processor (*i.e. Computer 34 monitors the time codes as file 40 is transmitted, and clients 30 similarly monitor the time codes as the file is received, in order to ensure that the transmission or reception is "keeping up" with the input of the data to the computer. In the event that a lag is detected, steps are taken to increase the data transmission or reception rate, as described further hereinbelow. For example, as shown in FIG. 3A, time intervals  $T_{sub.1}$ ,  $T_{sub.2}$ ,  $T_{sub.3}$ , etc., are not all equal, but rather are adjusted by computer 34 in response to the transmission rate. Alternatively or additionally, the compression level of the data is varied, as is likewise described below, so as to adjust the data streaming rate to the available bandwidth over one or more channels between computer 34 and server 36, and/or between server 36 and client 30, col. 7, lines 35-49).*

**As per claim 7**, Carmel teaches the method according to claim 6, further comprising: automatically interrupting transfer of the local data based on the status of the local processor (*i.e. If link 60 has not completed transmission of file 42 by the time the sixth file is ready for transmission, link 60 will have timed out, and a time-out indication will be received from step 88 (FIG. 5). In this case, link 60 is terminated and is replaced by link 70. Preferably, a "socket" opened for link 60 by a WINSOCK program running on computer 34 is simply reinitialized to open link 70. Optionally, file 42 is retransmitted over link 70 or over one of the other links, although in the case of a live broadcast transmission, it may be preferable simply to drop the file rather than send it after such a long delay, col. 12, lines 48-58).*

**As per claim 8**, Carmel teaches the method according to claim 6, wherein the status of the local processor is inferred from one of: status of a display device, a status of a memory; a configured processor utilization; and a time since a last interactive use of the local computer system (*i.e. If link 60 has not completed transmission of file 42 by the time the sixth file is ready for transmission, link 60 will have timed out, and a time-out indication will be received from step 88 (FIG. 5). In this case, link 60 is terminated and is replaced by link 70. Preferably, a "socket" opened for link 60 by a WINSOCK program running on computer 34 is simply reinitialized to open link 70. Optionally, file 42 is retransmitted over link 70 or over one of the other links, although in the case of a live broadcast transmission, it may be preferable simply to drop the file rather than send it after such a long delay, col. 12, lines 48-58).*

**As per claim 10**, Carmel teaches the method according to claim 6, further comprising: after automatically arranging for interruption of transfer of the local data, automatically arranging for resumption of transfer of the local data based on the status of the local processor (*i.e. If link 60 has not completed transmission of file 42 by the time the sixth file is ready for transmission, link 60 will have timed out, and a time-out indication will be received from step 88 (FIG. 5). In this case, link 60 is terminated and is replaced by link 70. Preferably, a "socket" opened for link 60 by a WINSOCK program running on computer 34 is simply reinitialized to open link 70. Optionally, file 42 is retransmitted over link 70 or over one of the other links, although in the case of a live broadcast transmission, it may be preferable simply to drop the file rather than send it after such a long delay, col. 12, lines 48-58).*

**As per claim 11**, Carmel teaches the method according to claim 10, further comprising: automatically resuming transfer of the local data based on the status of the local processor (*i.e. If link 60 has not completed transmission of file 42 by the time the sixth file is ready for transmission, link 60 will have timed out, and a time-out indication will be received from step 88 (FIG. 5). In this case, link 60 is terminated and is replaced by link 70. Preferably, a "socket" opened for link 60 by a WINSOCK program running on computer 34 is simply reinitialized to open link 70. Optionally, file 42 is retransmitted over link 70 or over one of the other links, although in the case of a live broadcast transmission, it may be preferable simply to drop the file rather than send it after such a long delay, col. 12, lines 48-58).*

**As per claim 12**, Carmel teaches the method according to claim 1, wherein the local user conditions comprise one of: a location of the local data; a preferred transfer time; a file extension associated with the local data; and a status of the communication link (*i.e. the rate of data being transmitted over each of links 60, 62, 64, col. 9, lines 31-48; link 60 will have timed out, col. 12, lines 48-59*).

**As per claim 13**, Carmel teaches the method according to claim 1, wherein the remote processor and the local processor are under independent control (*See Figs. 2, 4*).

**As per claim 24**, Carmel teaches the method according to claim 1, wherein the status is determined by direct monitoring of the local processor (*i.e. Preferably, computer 34 monitors the rate of data being transmitted over each of links 60, 62, 64, etc., and allocates files 42, 44, 46, 48, etc., according to the data rates. The sizes of the files may be varied by adjusting slice durations T1, T2, T3, etc., and a relatively greater volume of data may be transmitted through links exhibiting relatively greater data rates, col. 9, lines 31-49*).

**As per claim 25**, Carmel teaches the method according to claim 1, wherein the status is inferred by monitoring a status of other programs associated with the local computer-system (*i.e. If link 60 has not completed transmission of file 42 by the time the sixth file is ready for transmission, link 60 will have timed out, and a time-out indication*

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*will be received from step 88 (FIG. 5). In this case, link 60 is terminated and is replaced by link 70. Preferably, a "socket" opened for link 60 by a WINSOCK program running on computer 34 is simply reinitialized to open link 70. Optionally, file 42 is retransmitted over link 70 or over one of the other links, although in the case of a live broadcast transmission, it may be preferable simply to drop the file rather than send it after such a long delay, col. 12, lines 48-58).*

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable Carmel et al. (US Patent No. 6,389,473), in view of Roberts et al. (US Patent No. 6,920,110).**

**As per claim 9**, Carmel does not specifically teach the status of the display device comprises activation of a screen-saver.

Roberts teaches this limitation (*i.e. The relatively low level of actual network bandwidth utilization shown from T.sub.5 through T.sub.8 (FIG. 4) is sometimes referred to as "network idle." This concept differs from "machine idle," which occurs when a PC user is not currently using the keyboard or mouse. If the machine remains idle for a period of time, a screen saver may be invoked, col. 7, line 59 to col. 8, line 12).*

It would have been obvious to one of ordinary skill of the art having the teaching of Carmel, and Roberts at the time the invention was made to modify the system of Carmel to include the limitations as taught by Roberts. One of ordinary skill in the art would be motivated to make this combination in order to transfer a set of data over a network at a time when the network utilization is relatively low in view of Roberts (col. 7, line 59 to col. 8, line 12), as doing so would give the added benefit of being equally applicable to uploads from the client to the server or other communication of data between computers as taught by Roberts (col. 7, line 59 to col. 8, line 12).

### ***Response to Arguments***

With respect to claims 1-14, 24, 25, Applicants have amended the independent claims 1, 14 to recite a new limitation "determining a status of the local processor, wherein the determining step includes determining if the local processor has reduced

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activity or is idle"; however, upon further consideration, a new ground(s) of rejection is made in view of newly found prior arts.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James K. Trujillo, can be reached at (571) 272-3677. The fax number to this Art Unit is (571)-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Miranda Le/

Primary Examiner, Art Unit 2169